



RECEIVED
FEB 08 2019
HOBBS OCD

EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Heartthrob 17 State Com

#707H

OH

Design: OH

Midland PVA

20 December, 2018



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	WID Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Hearthrob 17 State Com		
Site Position:		Northing:	441,601.00 usft
From:	Map	Easting:	771,748.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 12' 42.634 N
		Longitude:	103° 35' 18.010 W
		Grid Convergence:	0.40 °

Well	#707H		
Well Position	+N-S	0.0 usft	Northing: 441,601.00 usft
	+E-W	0.0 usft	Easting: 771,715.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 12' 42.636 N
		Longitude:	103° 35' 18.394 W
		Ground Level:	3,569.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	8/23/2018	6.83
			Dip Angle
			60.03
			Field Strength
			47,806.38395680

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
		Direction	
		(°)	357.19

Survey Program	Date 12/20/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
214.0	17,401.0	Learn MWD (OH)	MWD
			Description
			OWSG MWD - Standard



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (")	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
214.0	0.40	331.60	214.0	0.7	-0.4	0.19	0.19	0.00	-0.7	0.0
398.0	0.30	160.80	398.0	0.8	-0.5	0.38	-0.05	-92.83	0.9	-0.2
582.0	0.30	179.20	582.0	-0.2	-0.3	0.05	0.00	10.00	-0.2	-0.3
772.0	0.10	243.90	772.0	-0.7	-0.5	0.14	-0.11	34.05	-0.8	0.5
960.0	0.10	271.70	960.0	-0.8	-0.8	0.03	0.00	14.79	-0.8	0.8
1,146.0	0.40	286.30	1,146.0	-0.6	-1.6	0.16	0.16	7.85	-1.3	1.0
1,299.0	0.80	278.90	1,299.0	-0.3	-3.1	0.27	0.26	-4.84	-3.1	0.8
1,499.0	0.90	285.90	1,499.0	0.3	-6.0	0.07	0.05	3.50	-5.9	1.3
1,686.0	0.50	292.10	1,686.9	1.1	-8.2	0.22	-0.21	3.32	-8.0	2.1
1,872.0	0.50	282.10	1,871.9	1.5	-9.7	0.05	0.00	-5.38	-9.9	0.6
2,059.0	0.50	280.30	2,058.9	1.8	-11.3	0.01	0.00	-0.96	-11.5	0.2
2,246.0	0.50	295.20	2,245.9	2.3	-12.9	0.07	0.00	7.97	-12.7	3.4
2,433.0	0.60	299.10	2,432.9	3.2	-14.5	0.06	0.05	2.09	-14.2	4.3
2,619.0	0.70	319.80	2,618.9	4.5	-16.1	0.14	0.05	11.13	-13.8	9.4
2,712.0	2.20	211.70	2,711.9	3.4	-17.4	2.70	1.61	-116.24	-6.2	-16.6
2,806.0	3.80	201.20	2,805.8	-1.0	-19.4	1.79	1.70	-11.17	-7.8	-17.8
2,900.0	6.10	203.10	2,899.4	-8.5	-22.5	2.45	2.45	2.02	-13.7	-17.3
2,994.0	6.00	202.80	2,992.9	-17.6	-26.4	0.11	-0.11	-0.32	-17.8	-17.3
3,087.0	5.50	201.90	3,085.4	-26.3	-29.9	0.55	-0.54	-0.97	-18.1	-17.3
3,180.0	5.20	199.60	3,178.0	-34.4	-33.0	0.40	-0.32	-2.47	-16.3	-17.4
3,274.0	4.90	196.40	3,271.6	-42.2	-35.6	0.44	-0.32	-3.40	-13.9	-17.2
3,462.0	4.20	189.40	3,459.0	-56.7	-39.0	0.47	-0.37	-3.72	-7.5	-14.7
3,556.0	5.30	194.70	3,552.7	-64.3	-40.6	1.26	1.17	5.64	-6.9	-12.1
3,650.0	4.90	195.40	3,646.3	-72.4	-42.8	0.43	-0.43	0.74	-5.7	-10.4
3,743.0	4.30	197.30	3,739.0	-79.5	-44.9	0.67	-0.65	2.04	-3.8	-9.0
3,837.0	6.50	204.00	3,832.6	-87.8	-46.1	2.43	2.34	7.13	-3.8	-8.0



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
3,931.0	6.30	207.20	3,926.0	-97.2	-52.6	0.43	-0.21	3.40	-4.9	-8.0	
4,025.0	6.30	209.80	4,019.5	-106.3	-57.6	0.30	0.00	2.77	-5.8	-8.5	
4,118.0	6.20	211.90	4,111.9	-115.0	-62.7	0.27	-0.11	2.28	-6.6	-9.4	
4,212.0	6.30	210.00	4,205.4	-123.8	-68.0	0.24	0.11	-2.02	-6.7	-10.8	
4,306.0	6.20	211.20	4,298.8	-132.6	-73.2	0.18	-0.11	1.28	-7.4	-11.8	
4,400.0	5.50	196.80	4,392.3	-141.2	-77.1	1.72	-0.74	-15.32	-3.9	-13.3	
4,493.0	5.60	183.40	4,484.9	-150.0	-78.7	1.39	0.11	-14.41	-0.5	-11.4	
4,587.0	5.80	191.00	4,578.4	-159.3	-79.9	0.83	0.21	8.09	-1.8	-8.4	
4,682.0	6.40	179.40	4,672.9	-169.3	-80.7	1.44	0.63	-12.21	-1.0	-5.4	
4,776.0	7.30	168.70	4,766.2	-180.4	-79.5	1.66	0.96	-11.38	-3.1	-0.7	
4,820.0	9.00	174.70	4,809.8	-186.5	-78.6	4.32	3.86	13.64	-5.4	2.1	
4,964.0	8.20	193.80	4,952.2	-207.7	-80.1	2.05	-0.56	13.26	-10.6	10.2	
5,058.0	7.30	207.20	5,045.3	-219.5	-84.4	2.14	-0.96	14.26	-10.6	13.4	
5,152.0	6.50	207.50	5,138.6	-229.6	-89.6	0.85	-0.85	0.32	-12.1	12.9	
5,245.0	6.50	206.60	5,231.0	-238.9	-94.4	0.11	0.00	-0.97	-13.1	12.2	
5,338.0	6.60	204.70	5,323.4	-248.5	-98.9	0.26	0.11	-2.04	-14.3	11.5	
5,432.0	6.50	204.50	5,416.8	-258.3	-103.4	0.11	-0.11	-0.21	-15.3	11.3	
5,526.0	6.40	204.20	5,510.2	-267.9	-107.8	0.11	-0.11	-0.32	-16.1	11.2	
5,619.0	6.00	207.20	5,602.7	-276.9	-112.1	0.55	-0.43	3.23	-15.8	11.8	
5,713.0	5.90	206.80	5,696.2	-285.6	-116.5	0.12	-0.11	-0.43	-15.8	11.2	
5,807.0	5.70	205.60	5,789.7	-294.1	-120.7	0.25	-0.21	-1.28	-15.7	10.5	
5,901.0	5.70	205.20	5,883.2	-302.6	-124.7	0.04	0.00	-0.43	-15.3	10.2	
5,995.0	5.50	205.40	5,976.8	-310.9	-128.7	0.21	-0.21	0.21	-14.6	10.0	
6,088.0	5.00	206.60	6,069.4	-318.5	-132.4	0.55	-0.54	1.29	-13.2	10.0	
6,182.0	4.80	206.10	6,163.1	-325.7	-135.9	0.22	-0.21	-0.53	-11.4	9.5	
6,275.0	5.80	204.90	6,255.7	-333.5	-139.6	1.08	1.08	-1.29	-10.5	9.1	
6,369.0	5.70	206.50	6,349.2	-341.9	-143.7	0.20	-0.11	1.70	-9.8	9.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
6,462.0	5.70	206.60	6,441.7	-350.2	-147.9	0.01	0.00	0.11	-9.3	8.7
6,556.0	6.10	207.30	6,535.2	-358.8	-152.2	0.43	0.43	0.74	-9.1	8.3
6,650.0	5.90	207.70	6,628.7	-367.5	-156.8	0.22	-0.21	0.43	-9.0	7.8
6,743.0	5.90	208.90	6,721.2	-376.0	-161.3	0.13	0.00	1.29	-8.7	7.3
6,837.0	5.70	209.10	6,814.7	-384.3	-165.9	0.21	-0.21	0.21	-8.4	6.5
6,928.0	5.40	210.30	6,905.3	-391.9	-170.3	0.35	-0.33	1.32	-7.6	5.7
7,022.0	4.90	211.20	6,998.9	-399.2	-174.6	0.54	-0.53	0.96	-6.2	4.7
7,115.0	4.80	211.90	7,091.6	-405.9	-178.7	0.12	-0.11	0.75	-4.4	3.5
7,209.0	3.70	216.50	7,185.3	-411.6	-182.6	1.22	-1.17	4.89	-1.4	2.1
7,302.0	3.30	216.50	7,278.2	-416.2	-185.9	0.43	-0.43	0.00	1.1	0.3
7,396.0	3.90	217.50	7,372.0	-420.9	-189.5	0.64	0.64	1.06	0.4	-0.9
7,490.0	4.00	210.70	7,465.8	-426.3	-193.1	0.51	0.11	-7.23	-3.6	-1.5
7,583.0	1.50	204.20	7,558.8	-430.2	-195.3	2.70	-2.69	-6.99	-7.8	-2.3
7,677.0	1.00	207.50	7,652.6	-432.0	-196.2	0.54	-0.53	3.51	-10.0	-1.8
7,770.0	1.00	220.40	7,745.6	-433.4	-197.1	0.24	0.00	13.87	-11.7	0.7
7,863.0	1.10	207.20	7,838.6	-434.8	-198.0	0.28	0.11	-14.19	-13.2	-2.2
7,958.0	0.80	211.00	7,933.6	-436.1	-198.8	0.32	-0.32	4.00	-14.9	-1.2
8,051.0	0.90	214.90	8,026.6	-437.3	-199.5	0.12	0.11	4.19	-16.4	-0.2
8,145.0	0.90	224.20	8,120.6	-438.4	-200.4	0.16	0.00	9.89	-17.6	2.6
8,239.0	0.90	225.60	8,214.5	-439.5	-201.5	0.02	0.00	1.49	-19.0	3.0
8,332.0	1.00	225.60	8,307.5	-440.6	-202.6	0.11	0.11	0.00	-20.6	3.0
8,426.0	0.90	213.90	8,401.5	-441.8	-203.6	0.23	-0.11	-12.45	-22.3	-1.4
8,520.0	0.90	53.90	8,495.5	-441.9	-203.4	1.89	0.00	-170.21	21.4	-6.6
8,613.0	0.80	61.60	8,588.5	-441.2	-202.2	0.16	-0.11	8.28	18.9	-9.3
8,707.0	0.70	62.00	8,682.5	-440.6	-201.2	0.11	-0.11	0.43	17.6	-9.4
8,801.0	0.50	61.10	8,776.5	-440.1	-200.3	0.21	-0.21	-0.96	16.8	-9.2
8,895.0	0.40	61.10	8,870.5	-439.8	-199.6	0.11	-0.11	0.00	16.1	-9.2

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
8,988.0	0.30	86.40	8,963.5	-439.6	-199.1	0.20	-0.11	27.20	10.1	-15.0	
9,082.0	0.20	56.40	9,057.5	-439.5	-198.7	0.17	-0.11	-31.91	15.9	-8.1	
9,176.0	0.20	47.90	9,151.5	-439.3	-198.5	0.03	0.00	-8.04	16.5	-5.7	
9,270.0	0.20	213.50	9,245.5	-439.3	-198.4	0.42	0.00	176.17	-17.4	1.4	
9,364.0	0.40	233.40	9,339.5	-439.7	-198.8	0.24	0.21	21.17	-16.4	7.3	
9,458.0	0.50	259.90	9,433.5	-439.9	-199.5	0.24	0.11	28.19	-12.1	14.0	
9,552.0	0.40	0.60	9,527.5	-439.7	-199.9	0.74	-0.11	107.13	15.8	9.7	
9,645.0	1.10	60.20	9,620.5	-438.9	-199.1	1.03	0.75	64.09	15.3	-8.4	
9,739.0	2.00	19.80	9,714.4	-438.9	-197.7	1.45	0.96	-42.98	14.8	2.9	
9,833.0	2.20	16.30	9,808.4	-433.6	-196.7	0.25	0.21	-3.72	11.1	3.7	
9,927.0	1.40	24.40	9,902.3	-430.9	-195.7	0.89	-0.85	8.62	8.6	2.4	
10,020.0	1.10	38.20	9,995.3	-429.1	-194.7	0.45	-0.32	14.84	6.9	0.5	
10,114.0	0.70	32.10	10,089.3	-427.9	-193.8	0.44	-0.43	-6.49	5.4	1.1	
10,207.0	0.90	2.60	10,182.3	-426.7	-193.5	0.48	0.22	-31.72	2.9	3.4	
10,300.0	0.60	309.10	10,275.3	-425.7	-193.8	0.78	-0.32	-57.53	-1.9	3.7	
10,394.0	0.80	248.00	10,369.3	-425.6	-194.8	0.78	0.21	-65.00	-5.1	-0.3	
10,487.0	1.10	226.70	10,462.3	-426.5	-196.1	0.49	0.32	-22.90	-6.1	-2.4	
10,581.0	1.20	224.90	10,556.2	-427.8	-197.4	0.11	0.11	-1.91	-7.9	-2.6	
10,675.0	1.50	214.00	10,650.2	-429.5	-198.8	0.42	0.32	-11.60	-9.5	-4.2	
10,769.0	1.50	207.20	10,744.2	-431.6	-200.1	0.19	0.00	-7.23	-11.4	-5.5	
10,861.0	1.90	228.10	10,836.1	-433.7	-201.7	0.79	0.43	22.72	-15.2	-0.6	
10,954.0	2.20	230.40	10,929.1	-435.9	-204.3	0.33	0.32	2.47	-18.6	0.1	
11,047.0	1.20	237.80	11,022.0	-437.5	-206.5	1.10	-1.08	7.96	-21.1	2.7	
11,139.0	1.20	285.00	11,114.0	-437.8	-208.2	1.04	0.00	51.30	-14.0	18.0	
11,233.0	1.10	28.90	11,208.0	-436.8	-208.7	1.93	-0.11	110.53	20.2	10.2	
11,327.0	0.80	107.70	11,302.0	-436.2	-207.7	1.31	-0.32	83.83	13.1	-17.0	
11,421.0	0.80	140.70	11,396.0	-436.9	-206.6	0.48	0.00	35.11	0.6	-21.0	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLog (°/100usft)	Buid (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
11,515.0	0.60	166.30	11,490.0	-437.9	-206.3	0.61	-0.21	48.51	-15.6	-14.6
11,609.0	1.10	175.00	11,584.0	-439.3	-206.2	0.56	0.53	-12.02	-13.8	-17.5
11,703.0	0.60	164.60	11,678.0	-440.6	-206.0	0.55	-0.53	-11.06	-11.8	-19.9
11,745.0	0.30	158.50	11,720.0	-440.9	-205.9	0.72	-0.71	-14.52	-9.9	-21.0
11,836.0	0.40	245.00	11,811.0	-441.3	-206.1	0.53	0.11	95.05	-21.9	8.9
11,930.0	0.60	269.20	11,905.0	-441.4	-206.9	0.30	0.21	25.74	-17.2	17.2
12,023.0	0.80	232.70	11,998.0	-441.8	-207.9	0.51	0.22	-39.25	-25.1	3.3
12,073.0	4.33	350.11	12,047.9	-440.2	-208.5	9.51	7.07	234.83	12.7	21.0
KOP: 12073.0' MD: 12047.9' TVD: -440.2'; -208.5'; 4.33'										
12,116.0	8.40	354.30	12,090.6	-435.5	-209.1	9.51	9.46	9.73	9.5	20.2
12,163.0	17.90	0.10	12,136.3	-424.8	-209.4	20.38	20.21	12.34	3.6	19.4
12,165.6	18.38	0.24	12,138.8	-424.0	-209.4	18.57	18.49	5.46	3.1	19.4
FTP Crossing 12165.6' MD: 12138.8' TVD: -424.0'; -209.4'; 18.38'										
12,210.0	26.60	1.90	12,179.8	-407.0	-209.1	18.57	18.51	3.73	-6.4	19.3
12,257.0	35.10	359.90	12,220.1	-383.0	-208.8	18.21	18.09	-4.26	-20.0	19.1
12,303.0	40.40	357.60	12,256.5	-354.8	-209.4	11.92	11.52	-5.00	-34.8	18.5
12,350.0	45.90	357.80	12,290.8	-322.7	-210.7	11.71	11.70	0.43	-48.8	19.4
12,398.0	50.10	358.90	12,322.9	-287.1	-211.7	8.91	8.75	2.29	-61.9	20.7
12,445.0	51.60	0.30	12,352.5	-250.6	-212.0	3.94	3.19	2.98	-71.9	21.7
12,490.0	54.70	0.30	12,379.5	-214.6	-211.8	6.89	6.89	0.00	-78.7	21.0
12,537.0	58.00	359.90	12,405.6	-175.5	-211.7	7.06	7.02	-0.85	-83.1	20.2
12,583.0	57.90	359.80	12,430.0	-136.5	-211.8	0.28	-0.22	-0.22	-83.2	19.8
12,678.0	58.50	359.60	12,478.0	-57.5	-212.2	0.67	0.65	-0.22	-67.5	20.2
12,723.0	62.50	359.20	12,502.1	-16.6	-212.7	8.54	8.51	-0.85	-53.7	20.4
12,770.0	70.20	359.40	12,521.0	26.4	-213.2	16.39	16.38	0.43	-39.9	20.4
12,817.0	77.40	358.90	12,534.1	71.5	-213.8	15.35	15.32	-1.06	-27.6	20.4
12,863.0	80.00	358.30	12,543.1	116.6	-214.9	5.80	5.65	-1.30	-18.6	21.0



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
12,957.0	87.20	357.10	12,553.6	209.9	-218.7	7.76	7.66	-1.28	-8.1	23.9
13,051.0	91.20	0.60	12,554.9	303.9	-220.6	5.65	4.26	3.72	-6.6	25.1
13,145.0	90.80	2.70	12,553.2	397.8	-217.9	2.27	-0.43	2.23	-8.0	21.7
13,239.0	90.20	4.30	12,552.4	491.6	-212.1	1.82	-0.64	1.70	-8.7	15.3
13,332.0	91.40	4.30	12,551.1	584.3	-205.2	1.29	1.29	0.00	-9.8	7.6
13,426.0	91.60	4.00	12,548.6	678.1	-198.4	0.38	0.21	-0.32	-12.0	0.1
13,520.0	89.40	3.40	12,547.8	771.9	-192.3	2.43	-2.34	-0.64	-12.6	-6.6
13,613.0	89.00	3.60	12,549.1	864.7	-186.6	0.48	-0.43	0.22	-11.2	-13.0
13,706.0	89.30	2.40	12,550.5	957.5	-181.8	1.33	0.32	-1.29	-9.6	-18.6
13,800.0	89.30	0.30	12,551.7	1,051.5	-179.5	2.23	0.00	-2.23	-8.1	-21.5
13,894.0	88.30	0.30	12,553.6	1,145.5	-179.1	1.06	-1.06	0.00	-5.8	-22.7
13,988.0	89.40	359.20	12,555.5	1,239.4	-179.5	1.65	1.17	-1.17	-3.5	-23.0
14,082.0	90.70	1.00	12,555.4	1,333.4	-179.3	2.36	1.36	1.91	-3.2	-23.8
14,176.0	90.40	358.70	12,554.5	1,427.4	-179.5	2.47	-0.32	-2.45	-3.7	-24.3
14,269.0	91.50	0.10	12,553.0	1,520.4	-180.5	1.91	1.18	1.51	-4.9	-24.0
14,363.0	92.90	0.60	12,549.4	1,614.3	-179.9	1.58	1.49	0.53	-8.1	-25.3
14,457.0	91.40	359.80	12,545.8	1,708.3	-179.6	1.81	-1.60	-0.85	-11.3	-26.3
14,551.0	90.00	359.00	12,544.7	1,802.2	-180.6	1.72	-1.49	-0.85	-12.1	-26.0
14,644.0	89.90	357.80	12,544.8	1,895.2	-183.2	1.29	-0.11	-1.29	-11.6	-24.1
14,738.0	87.80	357.80	12,546.7	1,989.1	-186.8	2.23	-2.23	0.00	-9.3	-21.3
14,832.0	86.90	357.10	12,551.0	2,082.9	-191.0	1.21	-0.96	-0.74	-4.7	-17.8
14,926.0	89.20	357.60	12,554.2	2,176.8	-195.3	2.50	2.45	0.53	-1.2	-14.1
15,020.0	87.30	356.60	12,557.1	2,270.6	-200.1	2.28	-2.02	-1.06	1.9	-10.1
15,113.0	95.10	358.90	12,555.1	2,363.4	-203.7	8.74	8.39	2.47	0.2	-7.1
15,205.0	89.10	352.90	12,551.8	2,455.0	-210.3	9.22	-6.52	-6.52	-2.9	-1.2
15,299.0	93.20	356.60	12,549.9	2,548.6	-218.9	5.87	4.36	3.94	-4.4	6.7
15,392.0	93.60	355.40	12,544.4	2,641.2	-225.4	1.36	0.43	-1.29	-9.7	12.5



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Dataverse:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,486.0	92.40	357.30	12,539.4	2,734.9	-231.4	2.39	-1.28	2.02	-14.3	17.7	
15,579.0	91.60	358.90	12,536.2	2,827.8	-234.4	1.92	-0.86	1.72	-17.3	20.1	
15,673.0	92.30	358.50	12,533.0	2,921.7	-236.6	0.86	0.74	-0.43	-20.2	21.6	
15,767.0	90.20	1.30	12,530.9	3,015.6	-236.7	3.72	-2.23	2.98	-22.0	21.0	
15,860.0	91.00	1.30	12,530.0	3,108.6	-234.6	0.86	0.86	0.00	-22.5	18.2	
15,954.0	90.70	0.60	12,528.6	3,202.6	-233.1	0.81	-0.32	-0.74	-23.4	15.9	
16,048.0	90.20	1.20	12,527.8	3,296.6	-231.6	0.83	-0.53	0.64	-23.7	13.7	
16,142.0	89.30	1.90	12,528.2	3,390.5	-229.0	1.21	-0.96	0.74	-22.8	10.5	
16,235.0	88.10	1.20	12,530.4	3,483.5	-226.5	1.49	-1.29	-0.75	-20.2	7.3	
16,329.0	89.80	1.20	12,532.1	3,577.4	-224.6	1.81	1.81	0.00	-18.0	4.6	
16,423.0	91.40	1.30	12,531.1	3,671.4	-222.5	1.71	1.70	0.11	-18.5	1.9	
16,517.0	89.90	0.50	12,530.0	3,765.4	-221.0	1.81	-1.60	-0.85	-19.1	-0.3	
16,610.0	89.90	357.80	12,530.2	3,858.4	-222.4	2.90	0.00	-2.90	-18.5	0.4	
16,704.0	91.80	358.20	12,528.8	3,952.3	-225.7	2.07	2.02	0.43	-19.4	3.0	
16,797.0	93.60	359.00	12,524.4	4,045.2	-228.0	2.12	1.94	0.86	-23.0	4.5	
16,891.0	90.70	358.80	12,520.9	4,139.1	-228.9	3.20	-3.09	0.85	-25.4	4.8	
16,984.0	92.00	359.40	12,518.7	4,232.0	-229.6	1.46	1.40	-0.43	-26.4	4.7	
17,078.0	90.80	359.20	12,516.4	4,326.0	-230.7	1.29	-1.28	-0.21	-27.6	5.2	
17,171.0	91.10	0.30	12,514.9	4,419.0	-231.2	1.23	0.32	1.18	-28.0	4.9	
17,265.0	88.90	0.60	12,514.9	4,513.0	-230.2	2.40	-2.34	0.53	-26.8	3.3	
17,347.0	91.90	1.50	12,514.3	4,595.0	-228.6	3.76	3.66	0.85	-28.3	1.0	
Last MWD Survey (MD = 17347.0)											
17,401.0	91.90	1.50	12,512.5	4,648.9	-227.2	0.00	0.00	0.00	-27.5	-0.8	
Projection to BH (MD = 17401.0)											



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3594.0usft
Site:	Hearthrob 17 State Com	MD Reference:	KB = 25 @ 3594.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+NLS (usft)	+ELW (usft)	
12,073.0	12,047.9	-440.2	-208.5	KOP 12073.0' MD; 12047.9' TVD; -440.2'; -208.5'; 4.33
12,165.6	12,138.8	-424.0	-209.4	FTP Crossing 12165.6' MD; 12138.8' TVD; -424.0'; -209.4'; 18.38
17,347.0	12,514.3	4,595.0	-228.6	Last MWD Survey (MD = 17347.0)
17,401.0	12,512.5	4,648.9	-227.2	Projection to Bit (MD = 17401.0)

Checked By: _____ Approved By: _____ Date: _____

